

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):	Mazzurco, et al.	Docket:	135740
Serial No.:	09/903,268	Art Unit:	2662
Filed:	July 11, 2001	Examiner:	Habte Mered
Title:	Method and Apparatus for Signalling in a Shared Protection Ring Architecture		

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Dear Commissioner:

It is respectfully requested that a review be made of the final rejection prior to filing of the Appeal Brief. This request is being filed simultaneously with a Notice of Appeal. No amendments are filed with this request. Applicant believes that there are clear errors in the final rejection mailed January 30, 2006 (Final Office Action); and thus, the final rejection has omissions of one or more essential elements needed for a prima facie rejection for the reasons stated below.

The Examiner rejected claims 1, 3-7, 9-13 and 15-18 under 35 U.S.C. 103 as being unpatentable over U.S. Patent No. 6,654,341 to Chi et al. (the Chi reference) in view of U.S. Patent No. 6,616,350 to de Boer et al. (the de Boer reference). However, neither the Chi reference nor the de Boer reference, either alone or in combination, teach or suggest the requirements of the claims.

Independent Claim 1 and dependent claims 2 through 6

The combination of the Chi reference and the de Boer reference fails to teach or suggest the requirements of claim 1. First, the combination fails to suggest the requirement of claim 1 of, “responsive to an indicated span switch on a first ring, wherein the span switch is not between the first and second network elements, passing control information for said first ring over said shared protection channel while indicating availability of the shared protection channel to other rings.” The Chi reference teaches away from this claimed requirement by stating a first come, first serve basis at column 5, line 65 through column 6, line 1. Though it describes that traffic is rerouted over the shared protection channel during a ring switch at column 6, lines 14 through

18, it specifically states that the traffic is rerouted through switches 1210 and 1240 and a K-byte ring switch signal is supplied to the switches. Thus, it does not disclose that control information is passed over the shared protection channel during a span switch and does not disclose indicating availability of the shared protection channel to other rings when control information is being passed over the shared protection channel in response to a span switch. And because it teaches a first come, first serve basis at column 5, line 65 through column 6, line 1, the Chi reference teaches away from the claimed requirements indicating availability of the shared protection channel to other rings after a span switch.

The Final Office Action states on Page 3, second paragraph that, “When a span switch request on a first ring occurs, then only the control and traffic information of ring 1 will pass through the protection line after the span switch occurs. Chi further discloses in this case that the availability of the shared protection channel to rings other than the first ring is distributed by the shared network elements. See column 6, lines 28 through 32.” This characterization of the prior art citation at column 6, lines 28 through 32 is not correct. The Chi reference includes no such description at this citation of what information is passed through the protection line after a span switch occurs or that the availability of the shared protection channel to rings other than the first ring is distributed by the shared network elements. As stated above, the Chi reference only describes a ring switch at column 6, lines 9 through 32. The cited passage of column 6, lines 28 through 32 of the Chi reference is describing that K-byte lockout protection span (LP-S) data is passed in response to a ring switch, at column 6, lines 25 through 28. Thus, the Chi reference is only describing a ring switch and that a lockout is passed in response to a ring switch.

The Final Office Action further states on page 3, last paragraph to page 4, first paragraph that, “Chi discloses how requests are handled after a span switch is executed on a shared protection line. See Column 5, lines 60-64.” Examining this citation at column 5, lines 60 through 64, the Chi reference states, “The span receiving the line information may do nothing if higher priority conditions exist, or may initiate a line switch, ring switch or route change.” This passage only describes various options in response to monitoring K-byte information. There is no description of performing a span switch and passing control information for a first ring with the span switch over the shared protection channel while indicating availability of the shared protection channel to other rings. As stated above, the only process described in the Chi

reference is that in response to a ring switch, then a K-byte lockout protection span (LP-S) data is passed, at column 6, lines 25 through 28.

The de Boer reference fails to add to the teachings of the Chi reference to suggest the requirements of claim 1. The de Boer reference nowhere even discloses a shared protection span or transmitting control signaling over a shared protection span between multiple rings. The de Boer reference only discloses a single SONET ring wherein adjacent nodes within the single network ring are interconnected by several working lines and a single protection line, as described at column 7, lines 6 through 8. Even with respect to a span and ring switching within this single SONET ring, the de Boer reference teaches away from the present invention by disclosing a priority scheme based on a priority of working spans for simultaneous failures, as stated at column 10, lines 58 through 61. There is no description of passing control information for a first ring over any of the protection channels while indicating availability of the protection channels to other rings. Thus, even if combined with the Chi reference, the combined references fail to disclose or suggest the requirements of claim 1. At most the combination would teach a first come, first serve basis as stated in the Chi reference or with priority levels for simultaneous failures for a single SONET ring as in the de Boer reference.

Second, the Chi reference fails to teach the requirement of, “responsive to an indication that the shared protection channel is needed to pass communications traffic for a second ring, ceasing to pass the control information for said first ring over said shared protection channel and indicating the non-availability of the shared protection channel to rings other than said second ring.” As shown above, the Chi reference only describes a ring switch. There is no description of what information is passed in response to a span switch and what occurs with a subsequent ring switch. Without any other descriptions of what occurs in response to a span switch prior to a ring switch, the Chi reference teaches away from the present invention by stating, “When rings share a protection line, however, the protection line is allocated for use on a first-come, first-serve basis.” Thus, the only teaching that can be gleaned or suggested by the Chi reference is that there are no preemptions by one ring or another ring for use of the protection line. The de Boer Reference also fails to describe passing control information for a first ring over any of the protection channels while indicating availability of the protection channels to other rings.

Thus, the combination of the Chi reference and the de Boer reference fail to teach or suggest the requirements of claim 1. Further arguments in the Amendment under 37 C.F.R. 1.116 filed March 30, 2006 (Amendment after Final) on pages 6-8 should be considered.

Independent Claim 7 and dependent claims 8 through 12

The combination of the Chi reference and the de Boer reference fail to disclose or suggest, *inter alia*, the requirement of, “passing control information for a first ring over said shared protection channel while indicating availability of the shared protection channel to rings other than said first ring, responsive to an indicated span switch on a first ring.” The Chi reference only describes that traffic is rerouted over the shared protection channel during a ring switch at column 6, lines 14 through 18. It specifically states that the traffic is rerouted through switches 1210 and 1240. Thus, it does not disclose that control information is passed over the shared protection channel during a span switch. Furthermore, it does not disclose indicating availability of the shared protection channel to other rings when control information is being passed over the shared protection channel during a span switch. In fact, the Chi reference teaches away from this type of prioritization by stating a first come, first serve basis at column 5, lines 3 through 5 and at column 5, line 65 through column 6, line 1. The de Boer reference fails to add to the teaching of claim 7. The de Boer reference nowhere even discloses a shared protection span or how to control signaling over a shared protection span. Thus, it can not add to the teaching of the Chi reference to disclose or suggest the requirement of claim 7, *inter alia*, of: “passing control information for a first ring over said shared protection channel while indicating availability of the shared protection channel to rings other than said first ring, responsive to an indicated span switch on a first ring.” Further arguments in the Amendment under 37 C.F.R. 1.116 filed March 30, 2006 (Amendment after Final) on pages 8 -10 should be considered.

Independent Claim 13 and dependent claims 14 through 18

The combination of the Chi reference and the de Boer reference fail to disclose or suggest the requirement of claim 13, *inter alia*, of, “circuitry for passing control information for a first ring over said shared protection channel while indicating availability of the shared protection channel to other rings, responsive to an indicated span switch on a first ring.” The Chi reference

only describes that traffic is rerouted over the shared protection channel during a ring switch at column 6, lines 14 through 18. It specifically states that the traffic is rerouted through switches 1210 and 1240. Thus, it does not disclose that control information is passed over the shared protection channel during a span switch. Furthermore, it does not disclose indicating availability of the shared protection channel to other rings when control information is being passed over the shared protection channel in response to a span switch. The Chi reference teaches away from this type of prioritization by stating a first come, first serve basis at column 5, line 65 through column 6, line 1. The de Boer reference fails to add to the teaching of claim 13. The de Boer reference nowhere even discloses a shared protection span or how to control signaling over a shared protection span. Thus, it can not add to the teaching of the Chi reference to disclose or suggest the requirement of claim 13, inter alia, of: "circuitry for passing control information for a first ring over said shared protection channel while indicating availability of the shared protection channel to other rings, responsive to an indicated span switch on a first ring." Further arguments in the Amendment under 37 C.F.R. 1.116 filed March 30, 2006 (Amendment after Final) on pages 10-11 should be considered.

For the above reasons, the rejections in the Final Office Action have omissions of one or more essential elements needed for a prima facie rejection. Therefore, it is respectfully requested that the rejection of the claims be withdrawn and full allowance granted. Should the Examiner have any further comments or suggestions, please contact Jessica Smith at (972) 477-9109.

Respectfully submitted,

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